

Notice of Allowability

Application No.

09/851,105

Examiner

Jean A Gelin

Applicant(s)

FUKUNISHI, TATSUYA

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/12/04.
2. ☒ The allowed claim(s) is/are 4, 2, 3, 5, 6, 19, 10, 8, 9, 11, 12, 20, 16, 14, 15, 17, 18, and 21, renumbered as 1-18 respectively.
3. ☒ The drawings filed on 09 May 2001 and 18 February 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. This is in response to the Applicant's amendments and arguments filed on November 12, 2004 in which claims 2, 6, 8, 12, 14, and 18 have been amended, and claims 1, 7, and 13 have been canceled. Claims 2-6, 8-12, and 14-21 are currently pending.

Allowable Subject Matter

2. After a further search and thorough examination of the present application and in view of the applicant's arguments and amendments, claims 4, 2, 3, 5, 6, 19, 10, 8, 9, 11, 12, 20, 16, 14, 15, 17, 18, and 21, renumbered as 1-18 respectively, are found to be in condition of allowance.

3. The following is an examiner's statement of reasons for allowance: the cited prior arts teach supplying one or more batteries per path. The prior art further teaches programming the MCU to control when to turn on and off switches according to the amount of energy discharge indicated by the voltage detector.

On the other hand, the Applicant teaches, inter alia, a second comparing circuit comparing said second standard voltage with the voltage detected by said first voltage detecting circuit, to detect whether an excess current flows through said one or more secondary batteries, wherein said first cutoff switch is controlled based on outputs of said first comparing circuit and said second comparing circuit. These limitations, in conjunction with all limitations of the independent claims, have not been disclosed, taught, or made obvious over the prior art of record.

The Applicant teaches, inter alia, a fourth comparing circuit comparing said fourth standard voltage with the voltage detected by said second voltage detecting circuit, to detect whether an excess current flows through said one or more secondary batteries, wherein said first cutoff switch is controlled based on outputs of said third comparing circuit and said fourth comparing circuit. These limitations, in conjunction with all limitations of the independent claims, have not been disclosed, taught, or made obvious over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A Gelin whose telephone number is (703) 305-4847. The examiner can normally be reached on 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R Hudspeth can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGelin
December 27, 2004

JEAN GELIN
PRIMARY EXAMINER

A handwritten signature in cursive script that reads "Jean Allard Gelin". The signature is written in black ink and is positioned below the printed name and title.